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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,511	04/13/2006	Remy Jacobus Wilhelmus Kamp	NL 031223	3918

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BRIARCLIFF MANOR, NY 10510

EXAMINER

SEMENTENKO, YURIY

ART UNIT

PAPER NUMBER

2841

MAIL DATE

DELIVERY MODE

06/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/575,511

Applicant(s)KAMP, REMY JACOBUS
WILHELMUS**Examiner**

YURIY SEMENENKO

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/21/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Amendment filed on 03/21/2008 has been entered.
In response to the Office Action dated 12/21/2007, Applicants have amended claims 1- 4, 7, 8, and 10. Claims 5 and 6 have been cancelled. Claims 11-15 are newly added. Claims 1 - 4, 7 – 15 are now pending in the application.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “ plurality of electronic components” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a

nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
- (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

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- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if

an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

- (i) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 - 4, 7 - 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 7, 8, 10, 14 and 15 recite the limitation "said slots". There is insufficient antecedent basis for this limitation in the claim.

Use throughout the claims of "a slot is provided ...at both sides thereof " make the claim language confusing because it is unclear whether there is one slot underneath of the narrowed metal track, which extends at both sides of the narrowed metal track or there are two separate slots located on each side of the narrowed metal track .

The Examiner assumes that there is one slot which extends at both sides of the narrowed metal track.

Clarification is required.

Claims 2 - 4, 9 directly depend on claim 1 and inherit the same deficiency.

Claims 11 – 13 directly depend on claim 10 and inherit the same deficiency.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 10 are rejected under 35 U.S.C. 102(a) as being anticipated by Nishimura et al. (PGPub. No: 2003/0048620) hereinafter Nishimura.

As to claims 1 and 10: Nishimura discloses in Fig. 1 a printed circuit board 1 comprising a substrate 20, a plurality of electronic components 11, and a pattern of metal tracks 12 on said substrate 20 for connecting said electronic components, said metal tracks 12 being covered with a protective non-conductive layer 30, Fig. 7, wherein said board further comprises a fuse, said fuse comprising a narrowed metal track (6') within the pattern, characterized in that said narrowed metal track (6') is uncovered such that it is exposed to air; and wherein a slot 71, Fig. 11 is provided in the substrate alongside substantially the entire length of the narrowed metal track 6" at both sides thereof; and wherein said slots being located at a distance of less than 2 mm from the narrowed metal track.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6.1. Claims 2, 3, 4, 7, 8 and 11 - 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura as applied to claims 1 and 10 above, and further in view of Lof (US 5543774).

As to claims 2, 3, 11 and 12: Nishimura discloses the printed circuit board having all of the claimed features as discussed above with respect claim 1,

except Nishimura does not explicitly disclose an area of at least 0.5 mm, preferably at least 1 mm extending from said narrowed metal track is uncovered; and a distance of at least 1.5 mm, preferably at least 2 mm of the ends of the wider metal tracks extending from both ends of the narrowed metal track are uncovered.

Lof teaches a distance of at least 2.5 mm of the ends of the wider metal tracks 3, Fig. 2 extending from both ends of the narrowed metal track (area 8 on Fig. 2); a distance between the copper plane 9 and the conductor of the fuse could be 8 mil (0.2 mm) (col: 2, 51 - 52) which means total width of the slot approximately 0.4 mm. Further, the courts have held that change in size of configuration, without any criticality, is within

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the level of skill in the art as particular size claimed by applicant is nothing more than one of numerous sizes that a person of ordinary skill in the art would have found obvious to provide using routine experimentation based on its suitability for the intended use of the invention, See *In re Dailey*, 149 USPQ 47 (CCPA 1966).

Therefore it would have been obvious to one of ordinary skill in the art, at time the invention was made to make an area of at least 0.5 mm, preferably at least 1 mm extending from said narrowed metal track is uncovered; and a distance of at least 1.5 mm, preferably at least 2 mm of the ends of the wider metal tracks extending from both ends of the narrowed metal track are uncovered, as taught by Lof, since the courts have held that change in shape or change in size configuration, without any criticality, is within the level of skill in the art as particular shape or size claimed by applicant is nothing more than one of numerous shape or size that a person of ordinary skill in the art would have found obvious to provide using routine experimentation based on its suitability for the intended use of the invention, See *In re Dailey*, 149 USPQ 47 (CCPA 1966), and in order to prevent touching the fuse to the circuit board.

As to claims 4 and 13: Nishimura discloses the printed circuit board having all of the claimed features as discussed above with respect claim 1,

except Nishimura does not explicitly disclose a width of said narrowed metal track is less than 0.3 mm.

Lof teaches a width of said narrowed metal track is 015 mm (col: 2, 47 - 51), which is less than 0.3 mm.

Therefore it would have been obvious to one of ordinary skill in the art, at time the invention was made to make a width of said narrowed metal track is 015 mm which is less than 0.3 mm, as taught by Lof, in order to interruption point for an overcurrent, as taught by Lof (col: 2, 47 - 51).

As to claims 7 and 14: Nishimura discloses in Fig. 1 a printed circuit board 1 comprising: a substrate 20, a plurality of electronic components 11, a pattern of metal tracks 12 on said substrate 20 for connecting said electronic components, said metal

tracks 12 being covered with a protective non-conductive layer 30, Fig. 7, a fuse, said fuse comprising a narrowed metal track (6') within the pattern, said narrowed metal track (6") being uncovered such that it is exposed to air, wherein a slot 71, Fig. 11 is provided in the substrate alongside substantially an entire length of the narrowed metal track (6") at both sides thereof,

except Nishimura does not explicitly disclose an area between the narrowed metal track and the slots is substantially uncovered.

Lof teaches a distance between the copper plane 9 and the conductor of the fuse could be 8 mil (0.2 mm) (col: 2, 51 - 52) which means there is substantially uncovered an area between the narrowed metal track and the slots is

Therefore it would have been obvious to one of ordinary skill in the art, at time the invention was made to make an area between the narrowed metal track and the slots is substantially uncovered, as taught by Lof, in order to prevent touching the fuse to the circuit board.

As to claims 8 and 15: Nishimura discloses in Fig. 1 a printed circuit board 1 comprising: a substrate 20, a plurality of electronic components 11, a pattern of metal tracks 12 on said substrate 20 for connecting said electronic components, said metal tracks 12 being covered with a protective non-conductive layer 30, Fig. 7, a fuse, said fuse comprising a narrowed metal track (6') within the pattern, said narrowed metal track (6") being uncovered such that it is exposed to air, wherein a slot 71, Fig. 11 is provided in the substrate alongside substantially an entire length of the narrowed metal track (6") at both sides thereof,

except Nishimura does not explicitly disclose the a width of the slots is at least 0.5 mm.

Lof teaches a distance between the copper plane 9 and the conductor of the fuse could be 8 mil (0.2 mm) (col: 2, 51 - 52) which means total width of the slot approximately 0.4 mm. Further, the courts have held that change in size of configuration, without any criticality, is within the level of skill in the art as particular size claimed by applicant is nothing more than one of numerous sizes that a person of

ordinary skill in the art would have found obvious to provide using routine experimentation based on its suitability for the intended use of the invention, See *In re Dailey*, 149 USPQ 47 (CCPA 1966).

Therefore it would have been obvious to one of ordinary skill in the art, at time the invention was made to make a width of the slots is at least 0.5 mm, as taught by Lof, since the courts have held that change in shape or change in size configuration, without any criticality, is within the level of skill in the art as particular shape or size claimed by applicant is nothing more than one of numerous shape or size that a person of ordinary skill in the art would have found obvious to provide using routine experimentation based on its suitability for the intended use of the invention, See *In re Dailey*, 149 USPQ 47 (CCPA 1966) and in order to prevent touching the fuse to the circuit board.

6.2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura as applied to claims 1 and 10 above, and further in view of Muesli (US 6548948) hereinafter Muesli.

As to claim 9: Nishimura does not disclose the printed circuit board having all of the claimed features as discussed above with respect claim 1,

except Nishimura does not disclose an electronic ballast for a gas discharge lamp comprising a printed circuit board.

Muesli teaches an electronic ballast 40, Fig. 3 for a gas discharge lamp 30, Fig. 2 comprising a printed circuit board 41, Fig. 3.

Therefore it would have been obvious to one of ordinary skill in the art, at time the invention was made to use a printed circuit board as stated by Nishimura a gas discharge lamp with an electronic ballast, as taught by Muesli in order to protect a gas discharge lamp from big current.

Allowable Subject Matter

7. Examiner confirms statement of the Office Action at 12/21/2007, as follows:

Claims 6, 7 and 8 are objected to as being dependent upon a rejected base claims 1 and 5 but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

Nishimura discusses the invention substantially as claimed, but at least two slots are located at a distance of from the narrowed metal track is not disclosed by the prior art of record.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuriy Semenenko whose telephone number is (571) 272-6106. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on (571)- 272-2800 ext. 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yuriy Semenenko/

Examiner, Art Unit 2841

/Tuan T Dinh/

Primary Examiner, Art Unit 2841